
WORKSHOP PRESENTATIONS

- [49] A. M. Farid, "Arctic Resilient Intelligent Ingrated Eenrgy System (ARIIES) Progress Presentation: April 2020," in *CRREL-ARIIES Progress Meeting*, Hanover, NH, USA, April 2020, pp. 1–15.
- [48] A. M. Farid, "Arctic Resilient Intelligent Ingrated Eenrgy System (ARIIES) Data Needs," in *CRREL-ARIIES Data Needs Meeting*, Hanover, NH, USA, 2019, pp. 1–14.
- [47] A. Viswanath and A. M. Farid, "A Hybrid Dynamic System Model for the Assessment of Transportation Electrification," in *5th MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2013, pp. 1–28.
- [46] A. Muzhikyan, A. M. Farid, and K. Y. Toumi, "Variable Energy Resource Induced Power System Imbalances," in *5th MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2013, pp. 1–41.
- [45] W. N. Lubega and A. M. Farid, "An Engineering Systems Model to Support Analysis of the Energy-Water Nexus," in *5th MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, no. October, Abu Dhabi, UAE, 2013, pp. 1–20.
- [44] R. C. Francy, A. M. Farid, and K. Youcef-Toumi, "Enhanced Power System State Estimation Techniques for the Incorporation of Variable Energy Resources," in *4th MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2013, pp. 1–6.
- [43] R. C. Francy, A. M. Farid, and K. Youcef-Toumi, "Weather Aided State Estimation (WASE)," in *4th MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2013, pp. 1–6.
- [42] R. Al Junaibi and A. M. Farid, "A Method for the Technical Feasibility Assessment of Electric Vehicle Penetration," in *4th MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2013, pp. 1–6.
- [41] W. N. Lubega, A. M. Farid, and K. Youcef-Toumi, "Architecture of the Energy-Water Nexus," in *4th MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2013, pp. 1–6.
- [40] A. Muzhikyan, A. M. Farid, and K. Youcef-Toumi, "Thesis Introduction," in *4th MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2013, pp. 1–6.
- [39] A. Muzhikyan, A. M. Farid, and K. Youcef-Toumi, "Simulation Results," in *4th MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2013, pp. 1–6.
- [38] A. Santhosh, A. M. Farid, and K. Youcef-Toumi, "Real Time Dispatch of Power and Water Networks," in *4th MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2013, pp. 1–6.

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- [37] A. Santhosh, A. M. Farid, and K. Youcef-Toumi, "Optimal Power and Water Flow Networks," in *4th MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2013, pp. 1–6.
- [36] R. Al Junaibi and A. M. Farid, "Technical Feasibility Assessment of Abu Dhabi ITS for Electric Vehicles," in *2nd MHI-MI Joint Workshop on the Electric Vehicle Adoption Feasibility in Abu Dhabi*, Abu Dhabi, UAE, 2013, pp. 1–27.
- [35] R. Al Junaibi and A. M. Farid, "Development of EV Traffic Simulation Study and Scenarios," in *2nd MHI-MI Joint Workshop on the Electric Vehicle Adoption Feasibility in Abu Dhabi*, Abu Dhabi, UAE, 2013, pp. 1–19.
- [34] R. Al Junaibi and A. M. Farid, "Studying the Impact of Electric Vehicles on Abu Dhabi's Grid," in *2nd MHI-MI Joint Workshop on the Electric Vehicle Adoption Feasibility in Abu Dhabi*, Abu Dhabi, UAE, 2013, pp. 1–16.
- [33] R. Al Junaibi and A. M. Farid, "A Method for the Technical Feasibility Assessment of Electric Vehicle Penetration," in *2nd MHI-MI Joint Workshop on the Electric Vehicle Adoption Feasibility in Abu Dhabi*, Abu Dhabi, UAE, 2013, pp. 1–24.
- [32] A. Muzhikyan, A. M. Farid, and K. Youcef-Toumi, "Variable Energy Resource Induced Power System Imbalance as Mitigated by Real-Time Markets and Operator Actions," in *3rd MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–6.
- [31] A. M. Farid, "Smart Grid Transient Stability Simulator v1.0," in *3rd MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–39.
- [30] A. M. Farid and K. Youcef-Toumi, "Introduction to Transient Stability Analysis," in *3rd MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–21.
- [29] A. M. Farid and K. Youcef-Toumi, "Program Agenda and Abstracts," in *3rd MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–5.
- [28] R. C. Francy, A. M. Farid, and K. Youcef-Toumi, "Event-Triggered State Estimation for Variable Energy Resources Management," in *3rd MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–6.
- [27] R. Al Junaibi and A. M. Farid, "A Method for the Technical Feasibility Assessment of Electric Vehicle Penetration," in *3rd MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, 2012, pp. 1–16.
- [26] W. N. Lubega and A. M. Farid, "Water Flow Analysis," in *3rd MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–23.
- [25] A. Santhosh, A. M. Farid, and K. Youcef-Toumi, "Simultaneous Economic Dispatch of Power and Water Networks," in *3rd MIT-MI Joint Workshop on the Reliability of Power System Operation &*

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- Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–20.
- [24] H. M. Abdelhalim, A. M. Farid, A. Adegbege, L. Rouco, and K. Youcef, “Small-Signal Stability Analysis of Multi-Machine Power Networks with Large Scale Integration of Wind Power,” in *2nd MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–32.
 - [23] A. Adegbege, A. M. Farid, and K. Youcef-Toumi, “Electric Market Optimization with Demand Side Response,” in *2nd MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–15.
 - [22] M. F. Aftab and A. M. Farid, “Towards Automated Demand Side Management for Commercial Enterprises,” in *2nd MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–6.
 - [21] A. M. Farid and K. Youcef-Toumi, “Introductions and Workshop Goals,” in *2nd MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–11.
 - [20] A. M. Farid, “LIINES Future Directions,” in *2nd MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–12.
 - [19] R. C. Francy, A. M. Farid, and K. Youcef-Toumi, “Variable Energy Resource Event Triggered State Estimation,” in *2nd MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–6.
 - [18] R. Al Junaibi and A. M. Farid, “Technical Feasibility Assessment of Electric Vehicles in Abu Dhabi Road Transport,” in *2nd MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–6.
 - [17] A. Muzhikyan, A. M. Farid, and K. Youcef-Toumi, “Power System Operator Decision Support in the Presence of Variable Energy Resources,” in *2nd MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–12.
 - [16] A. Santhosh, A. M. Farid, and K. Youcef-Toumi, “Efficient Co-Production and Dispatch of Optimal Power and Water Flow,” in *2nd MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–14.
 - [15] H. M. Abdelhalim, A. M. Farid, and K. Youcef-Toumi, “Small Signal Stability Analysis: Overview and Example,” in *1st MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–36.
 - [14] A. A. Adegbege, A. M. Farid, and K. Youcef-Toumi, “State Estimation in Electrical Power System Networks,” in *1st MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1–23.

WORKSHOP PRESENTATIONS

- [13] A. A. Adegbege, A. M. Farid, and K. Youcef-Toumi, "Transmission System Reliability Assessment : Alternative Views," in *1st MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1-19.
- [12] A. M. Farid and K. Youcef-Toumi, "Introductions and Workshop Goals," in *1st MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2011, pp. 1-9.
- [11] R. C. Francy, A. M. Farid, and K. Youcef-Toumi, "Power Grid Monitoring System- SCADA & Synchrophasor Technology," in *1st MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1-26.
- [10] R. Al Junaibi and A. M. Farid, "The Impact of the Transportation-Electricity Nexus on the Technical Potential of Electric Vehicles in Abu Dhabi," in *1st MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1-20.
- [9] A. Muzhikyan, A. M. Farid, and K. Youcef-Toumi, "Performance Comparison of Power Grid Operator Procedures with Existing Dynamic Reconfiguration Techniques," in *1st MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1-21.
- [8] A. Santhosh, A. M. Farid, and K. Youcef-Toumi, "Optimization Problems for Power Systems Applications," in *1st MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1-40.
- [7] A. Santhosh, A. M. Farid, and K. Youcef-Toumi, "Essentials of Power Systems Markets," in *1st MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1-31.
- [6] E. Theodorou, A. M. Farid, and K. Youcef-Toumi, "Small Signal Stability Analysis with Integrated Solar Power Sources," in *1st MIT-MI Joint Workshop on the Reliability of Power System Operation & Control in the Presence of Increasing Penetration of Variable Energy Sources*, Abu Dhabi, UAE, 2012, pp. 1-24.
- [5] A. M. Farid, "Impacts of Electric Vehicle Penetration on Abu Dhabi Power Distribution," in *1st MHI-MI Joint Workshop on the Electric Vehicle Adoption Feasibility in Abu Dhabi*, Abu Dhabi, UAE, 2012, pp. 1-6.
- [4] A. M. Farid, "Intelligent Transportation System Literature," in *1st MHI-MI Joint Workshop on the Electric Vehicle Adoption Feasibility in Abu Dhabi*, no. September. Abu Dhabi, UAE: Masdar Institute of Science and Technology, 2012, pp. 1-6.
- [3] A. M. Farid, "Analysis of Abu Dhabi Intelligent Transportation System," in *1st MHI-MI Joint Workshop on the Electric Vehicle Adoption Feasibility in Abu Dhabi*, Abu Dhabi, UAE, 2012, pp. 1-6.
- [2] A. M. Farid, S. Sgouridis, and H. Ono, "Data Requirements for Traffic Simulation," in *1st MHI-MI Joint Workshop on the Electric Vehicle Adoption Feasibility in Abu Dhabi*, no. September, Abu Dhabi, UAE, 2012, pp. 1-15.

RESEARCH POSTERS

- [1] R. Al Junaibi and A. M. Farid, "Abu Dhabi Intelligent Transportation Systems," in *1st MHI-MI Joint Workshop on the Electric Vehicle Adoption Feasibility in Abu Dhabi*, Abu Dhabi, UAE, 2012, pp. 1–6.

Research Posters

- [5] T. Van der Wardt, D. Allan, R. Al Junaibi, A. Viswanath, P. Hegde, and A. M. Farid, "Research poster: Intelligent transportation energy systems for massively electrified transportation infrastructure," Lenggries, Germany, Tech. Rep., 2019.
- [4] A. M. Farid, "Research Poster: Integrated Control, Automation, & IT for Sustainable Large Complex Engineering Systems," Masdar Institute of Science and Technology, Abu Dhabi, UAE, Tech. Rep., 2012.
- [3] R. Al Junaibi and A. M. Farid, "Research Poster: A Method for the Technical Feasibility Assessment of Electric Vehicle Penetration," *EPFL UAE-Swiss Research Day*, p. 1, 2012.
- [2] A. M. Farid and K. Youcef-Toumi, "Research Poster: Reliable Power Grid Operation and Control in the Presence of Increasing Penetration of Variable Energy Resource," p. 1, 2011.
- [1] M. F. Aftab and A. M. Farid, "Research Poster: Towards Automated Demand-Side Management for the Commercial Sector," in *MIT Energy Conference*, Cambridge, MA, USA, 2011, p. 1.

RESEARCH POSTERS**5.2 Industrial & Governmental Engagement****5.2.1 Dartmouth Research Contracts and Grants**

Year	Agency	Role	Title	Budget	Status
2021	Sustainable H2O	PI	Techno-Economic Assessment of the Sustainable H2O Water Treatment Technology. Apr-Aug 2021.	~\$25,000	Provisionally Accepted
2020	U.S. Army CRREL	Co-PI	Phase 2: Resilient Energy System Solutions for Extremely Cold Regions Jul. 2020-Jul. 2022.	\$1,500,000 (\$429,611 PI-Portion 2.5 PI-Months 12 PhD-Months ¹)	Awarded
2019	Institute for Security, Technology and Society	PI	Developing a Hetero-Functional Graph Theory for Enhancing the Resilience of Cyber-Physical Systems Sep. 2019-Jul. 2021.	\$ 80,000 PI-Months N/A ² 15 PhD-Months	Awarded
2019	Electric Power Research Institute (EPRI)	PI	The Energy Internet of Things Extensible Information Model and Simulation (eIoT-XIMSIM) Phase I: Project Conceptualization Jul. 2019 - Jan. 2020.	\$ 81,681 2 PI-Months 3 PhD-Months	Awarded
2019	NSF	PI	(SSDIM-AMES-3D+) American Multi-Modal Energy System Synthetic & Simulated Data Plus. Sep. 2019 - Sep. 2021.	\$ 260,757 2 PI-Months 24 PhD-Months	Awarded
2019	U.S. Army CRREL	Co-PI	Resilient Arctic Energy Systems Aug. 2019 - Feb. 2022.	\$1,500,000 (\$443,535 PI-Portion) 1 PI-Month PhD-Months N/A ³	Awarded
2018	Irving Institute for Energy & Society at Dartmouth	PI	Lebanon's Transactive Energy Blockchain Prototype Jan. 2019 - Jan. 2020.	\$39,814 0.25 PI-Months 7 PhD-Months	Awarded

¹Postdoc funding not shown will likely be shifted to PhD student funding.²N/A means not allowed by the sponsor at the time of award.³N/A means not allowed by the sponsor at the time of the award. Since then, all of the postdoc funding (as the largest budget item) has been shifted to PhD student funding.

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2017	DOE	PI	How Much Flexibility Can the Water Infrastructure Provide to the Electric Power System in New England? Nov. 2017 - May 2018.	\$ 70,000 (\$35,000 PI-Portion) 0.1 PI-Months 4.3 PhD-Months	Awarded
2017	NSF	PI	(SSDIM-AMES-3D) American Multi-Modal Energy System Synthetic & Simulated Data. Sep. 2017 - Sept. 2019.	\$ 200,000 1.1 PI-Months 24 PhD-Months	Awarded
2017	Electric Power Research Institute (EPRI)	PI	Energy Internet of Things. Sep. 2017 - Jan. 2018.	\$ 40,119 0.5 PI-Months 3 PhD-Months	Awarded
2017	ISO New England (ISO-NE)	PI	(SOARES) System Operational Analysis and Renewable Energy Integration Study. Mar. 2017 - Apr. 2018.	\$ 250,000 2.65 PI-Months 18 PI-Months	Awarded
Total Single-PI Funding				\$1,885,516	
Total External Funding				\$ 4,024,919	

5.2.2 Dartmouth Research Proposals – Other

Year	Agency	Role	Title	Budget	Status
2021	NSF-S&CC	PI	SCC-IRG: Lebanon's Transactive Energy Community (LEBTEC)	\$2,500,000	Awaiting
2020	NSF-Mid-scale RI-1	Co-PI	Interoperable Cyberinfrastructure for Intelligent Water Systems (i4Water) (Pre-Proposal)	\$8,000,000	Awaiting
2020	NSF-LEAP-HI	PI	LEAP-HI: America's Communication, Health, Energy, & Water Resilient Infrastructure (ACHEW-RI) Post-COVID-19	\$1,999,985	Awaiting
2020	NIH-NCI	Co-PI	A Novel Data-Driven Method to Simulate the Behavior of the American Cancer Healthcare Delivery System	\$451,000	Awaiting
2020	Irving Institute for Energy & Society at Dartmouth	Co-PI	Self-Powered Wireless Sensor Networks for Improving Urban Energy Efficiency	\$100,000	Declined

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2019	Shell New Energy	PI	Demonstrating Sustainable Value: The Lebanon Blockchain Transactive Energy Control (LEBTEC) Software	\$138,658	Awaiting
2019	DOE	PI	Secure Synergistic Solar Sites (S4): Transactive Energy Grid Services from BTM	\$ 2,950,000	Declined
2019	DOE	PI	The Impact of Snowfall on Grid Operator's Solar PV Generation	\$ 45,671	Declined
2019	BP	PI	Dartmouth's Intelligent Multi-Modal Energy System (DIMES)	\$1,087,709	Awaiting
2019	Dartmouth	PI	Dartmouth's Renewable Energy Management System (DREEMS)	\$68,065	Awaiting
2019	NSF	Co-PI	AccelNet: Accelerating Convergence for Sustainable and Resilient Urban Infrastructure Systems (SuRbInS): A Global Network of Networks	\$1,500,000	LOI Submitted
2018	DOE	PI	Synergistic Solar Sites (S3): Transactive Control to Leverage Behind the Meter DERs	\$ 3,668,700	Declined - Advanced to Final Round
2018	Ingersoll RAND	PI	Managing the Global Integrated Supply Chain for the ThermoKing Galway Facility	\$ 369,544	Awaiting
2018	Energy Foundation (New England)	PI	Deep Decarbonization of the New England Energy System (<i>Invited Concept Paper</i>)	TBD	Awaiting
2018	Hewlett Foundation	PI	Deep Decarbonization of the New England Energy System (<i>Letter of Intent</i>)	TBD	Awaiting
2018	Energy Foundation (New England)	PI	Deep Decarbonization of the New England Energy System (<i>Letter of Intent</i>)	TBD	Accepted - Invitation for Concept Paper
2018	Regenerative Agriculture Foundation	PI	Food-Energy-Water Nexus Microgrid (<i>Letter of Intent</i>)	TBD	Awaiting
2018	Russell Foundation	PI	A Food-Energy-Water Nexus Microgrid (<i>Letter of Intent</i>)	TBD	Awaiting

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2018	Energy Foundation (CA)	PI	Transformation of California's Transportation Electricity Nexus (<i>Letter of Intent</i>)	TBD	Awaiting
2018	DOE-EPSCOR	PI	An Enterprise Control Methodology for the Implementation of Transactive Energy (<i>pre-proposal</i>)	\$ 750,000	Declined at Provost's Office
2018	ARPA-E	PI	Microgrids for All: Integrated Techno-Economic Management of Consumer-Owned Energy Assets (<i>concept paper</i>)	\$ 3,000,000	Declined
2018	Heller Foundation	PI	Solving Energy Scarcity, Water Scarcity, and Nutrient-Deficient Soils for Rural Farms (<i>concept paper</i>)	\$ 50,000	Awaiting
2017	MassDOT	Co-PI	New England University Transportation Center	\$ 3,000,000	Declined
2017	Norface/NSF	Co-PI	(BOETS) Barriers and Opportunities to Electricity's Transformation to Sustainability	\$ 643,191	Declined
2017	Neukom Institute	PI	Resilience in the American Multi-Modal Energy System	\$ 40,000	Declined
2016	DOE-BPA	PI	Coordinated Planning & Operation of Renewable Energy, Demand Side, & Hydro Energy Resources in the BPA Power Grid Enterprise Control	\$494,565	Declined
2016	NSF	PI	INFEWS/T1: An Infrastructure Systems Modeling Methodology for the Food-Energy-Water Nexus at Multiple Spatial & Temporal Scales	\$3,000,000	Declined - Competitive Rating
2016	Dartmouth College	PI	Modeling the Multi-Carrier Dartmouth Energy System for Sustainability & Resilience	\$119,727	Declined due to Insufficient Funds
2016	DARPA-BBN Subcontract	Co-PI	Situational Awareness of the Power Grid: A Locational Marginal Pricing Approach	\$600,000	Declined w/o review by BBN & OSP

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2015	NSF-EPSCOR	PI	RII Track-2 FEC: Policy, Infrastructure & Technology Transition to a Sustainable American Food-Energy-Water Nexus	\$5,999,951	Declined at Provost's Office
2015	Abu Dhabi Department of Transportation	PI	An Energy Management Function for the Intelligent Transportation Systems of the Emirate of Abu Dhabi	\$1,494,685	Awaiting
Total Awarded				-	

5.2.3 Masdar Institute Research Contracts & Grants

Year	Award #	Role	Title	Expenditures
2013	Energypath Travel grant	Principal Investigator	Coordination & Control of Multiple Microgrids Using Multi-Agent Systems	\$1000
Mar 2012 - Mar 2013	11EZZA1 Mitsubishi Heavy Industries -METI	Principal Investigator	Potential for Electric Vehicle Adoption in Abu Dhabi	\$326,413
Feb 2011 - Jan 2014	10EAMA1 MIT-MI Joint Project	Principal Investigator	Reliable Power Grid Operation & Control in the Presence of Increasing Penetration of Variable Energy Resources	\$500,000
Total				\$827,413

5.2.4 Industrial Agreements w/o Funding

Academic Software Program. Bentley Infrastructure Software Suite. Bentley 2012. (54 Industrial Grade Applications x 10 licenses with Free Training. Approximate Value: \$500,000)

Academic Software & Training Program. AcclaroDFSS. Axiomatic Design Inc. 2012. (Approximate Value: 10 licenses x \$1300= \$13,000)

Memorandum of Understanding Abu Dhabi Department of Transportation. 2012.

Memorandum of Understanding Abu Dhabi Water & Energy Authority. 2012